

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

As a preliminary matter, Applicant notes the Office Action's approval of the drawings filed on May 3, 2006, acknowledgement of Applicant's claim for foreign priority under 35 U.S.C. § 119(a)-(d), receipt of all certified copies of the priority documents and consideration of the Information Disclosure Statement also filed on May 3, 2006.

Claims 1 and 2 stand rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite. Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,436,687 to Andrews, Jr. et al. (hereinafter "Andrews, Jr.") in view of U.S. Patent Application Publication No. 2005/0219001 to Lin et al. (hereinafter "Lin").

By this amendment, claim 1 has been amended to address the indefiniteness concerns raised on page 2 of the Office Action. Applicant respectfully submits that any ambiguity or indefiniteness issues that may have existed with claims 1 and 2 have been corrected with the amendments made to independent claim 1. Thus, the claims, as amended, are definite and satisfy the requirements set forth under 35 U.S.C. § 112, ¶ 2. Withdrawal of the outstanding rejection is respectfully requested. Claim 2 remains unchanged in the application.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier. After amending the claims as set forth above, claims 1 and 2 remain pending in this application for consideration.

Applicant respectfully submits that each of the claims is patentably distinguishable over the cited references as required by § 103. Applicant further submits that none of the cited references, whether considered alone or in combination, discloses Applicant's claimed inductance element of an electromagnetic delay line wherein the claimed configuration results ***in the inductors of two sections being formed between the inductor not divided and the first and second inductors connected in series in a vertical positional relation so as to be***

connected with positive coupling as required by independent claim 1. By contrast, the cited references fail to render obvious, based on those cited references, this claimed feature and arrangement. Accordingly, independent claim 1 and dependent claim 2 are patentably distinguishable over the cited references. This distinction will be further described below.

THE CLAIMS DISTINGUISH OVER THE CITED REFERENCES

In the Office Action, claims 1 and 2 stand rejected as being unpatentable over Andrews, Jr. in view of Lin. Applicant respectfully traverses the rejections of these claims, and submits that these claims are allowable for at least the following reasons.

The framework for the objective analysis for determining obviousness under §103 requires:

1. Determining the scope and content of the prior art;
2. Ascertaining the differences between the claimed invention and the prior art;
3. Resolving the level of ordinary skill in the pertinent art; and
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Teleflex, Inc. v. KSR Int'l Co., 127 S. Ct. 1727, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). In order to establish a *prima facie* case of obviousness, all the claim limitations must be taught or suggested by the prior art. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). See MPEP §2143.03.

Missing Recitations from the Prior Art

Embodiments of the present invention are directed to an inductance element of an electromagnetic delay line in a lumped constant type electromagnetic delay line. The inductance element of an electromagnetic delay line includes a plurality of sections and capacities. The plurality of sections are formed of an inductive element which is formed by connecting a plurality of inductors in series. The capacities are vertically connected to each connection point in a ladder shape. The inductors of the electromagnetic delay line are formed in a spiral shape. The inductors of one section are formed by alternately and vertically

connecting the section divided, being arranged into a first and a second inductor in a horizontal direction, and the section not divided. Fig. 2 provides an exemplary embodiment of an inductance element according to the present invention.

According to one embodiment of the present invention as required by independent claim 1, the first inductor is arranged in a vertical positional relation so as to be connected with positive coupling to the inductor of the preceding section not divided in series and the second inductor of the section is arranged in the vertical positional relation so as to be connected with positive coupling to the inductor of the following section not divided in series, with the inductors as two sections of delay line being arranged in the vertical positional relation. In other words, ***the inductors of two sections are formed between the inductor not divided and the first and second inductors connected in series in a vertical positional relation so as to be connected with positive coupling.*** With this feature and arrangement, a preferable coupled state between individual section, micro miniaturization and an increase in delay time per unit area can be achieved. (Specification, page 8, lines 5-12).

One exemplary embodiment of the present invention is illustrated in FIGS. 1 and 2 which shows, the inductors of one section is formed between the inductor not divided L1 and the first L2A and second L2B inductors connected in series in a vertical positional relation so as to be connected with positive coupling and the inductors of another section is formed between the inductor not divided L3 and the first L4A and second L4B inductors connected in series in a vertical positional relation so as to be connected with positive coupling. Applicant respectfully submits that the cited references, whether considered individually or collectively, fail to disclose, teach or suggest this claimed feature and arrangement as well as the benefits provided.

The Office Action states on page 3, that the primary reference of Andrews, Jr. discloses each of the claimed features except for alternating the single spiral coils and the spiral coils with two sections in a vertical configuration and having multiple alternating sections. The Office Action then relies on the Lin reference to cure these deficiencies. Applicant respectfully disagrees.

The Lin reference is directed to a lumped-element elliptical lowpass filter realized in a multi-layered substrate (Lin, paragraph 2, lines 1-4). The Office Action appears to equate Lin's inductor L3 and L5 to one of the claimed sections and Lin's inductors L1 and L7 to another of the claimed sections. Applicant respectfully submits, however, that Lin merely discloses a structure of forming plural filters for one section on the central coil axis and fails to disclose the section division of the LC circuit between the upper two layers and the lower two layers. In other words, Lin fails to disclose, teach or suggest ***the inductors of two sections are formed between the inductor not divided and the first and second inductors connected in series in a vertical positional relation so as to be connected with positive coupling***. Thus, this shortcoming defines at least one patentable deficiency in the references.

In view of the fact that the cited references, whether considered alone or in combination do not disclose the claimed feature and arrangement indicated above, these references cannot be said to render obvious the invention which is the subject matter of independent claim 1. Thus, independent claim 1 is allowable.

Because independent claim 1 is allowable, dependent claim 2 is allowable by virtue of its direct dependence from allowable independent claim 1 and for containing other patentable features. Further remarks regarding the asserted relationship between any of the claims and the cited references are not necessary in view of their allowability. Applicant's silence as to the Office Action's comments is not indicative of being in acquiescence to the stated grounds of rejection.

The Level of Ordinary Skill In the Art has Incorrectly Been Ascertained

KSR did not repeal the *Graham v. John Deere Co.* factors - just the opposite, it reaffirmed them. One of those factors is the requirement that the PTO must resolve the level of ordinary skill in the pertinent art. It is respectfully submitted that the PTO presumes a higher level of skill of the ordinary artisan in this art than was actually present at the time of the invention.

The ordinary artisan would not have had a level of skill sufficient to render the invention obvious to that ordinary artisan. Specifically, before the disclosure of the present invention, the ordinary artisan would not have had the skill to predict that the features of

Andrews, Jr. could be modified in accordance with Lin as is asserted in the Office Action. To the contrary, only the innovator would have had the skill necessary to predict such modification. The ordinary artisan would not have had the skills to arrive at the present invention without instruction from the innovator. The Office Action is silent in regard to addressing the requisite *Graham* factors.

Lack of Sufficiently Articulated Rationale to Modify or Combine the References

The Office Action fails to meet the requirement of providing a sufficiently articulated rationale to combine Andrews, Jr. and Lin.

The Supreme Court in *KSR* stated that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the art...it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR* at 1741. In addition, the Court in *KSR* stated that a reason to combine elements should be made explicit. *Id.* at 1740-41.¹ Indeed, the Court approvingly cited *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006), for requiring an articulated reason. *Id.* at 1741.²

Andrews, Jr. is devoid of any reason why one of skill in the art would incorporate the teachings of Lin into Andrews, Jr. The Office Action states that it would have been obvious to combine Lin into Andrews, Jr. because doing so would provide “the benefit of reducing the size of the lump element inductors.” Thus, the proffered motivation, even assuming that the underlying results do in fact occur from general implementation of the teachings of Lin does not mean that the ordinary artisan would have combined the references. Instead, the Office Action all but relies on Applicant’s disclosure for motivation to modify the references to

¹ “Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.” *Id.* at 1740-41.

² “Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” *Id.* at 1741.

arrive at the claimed invention, the Office Action citing nothing in the prior art that provides the specific motivation to modify the references to arrive at the invention as claimed.

Thus, the PTO has not properly articulated a reason for why one with ordinary skill in the art would combine the teachings of Andrews, Jr. with Lin. Because the PTO has not provided sufficient reasons to combine the teachings of Andrews, Jr. with Lin, any rejections based on these combinations are improper. Accordingly, the present claims are not rendered unpatentable over the prior art.

Applicant respectfully submits that independent claim 1 and dependent claim 2 are patentably distinguishable over the cited references and thus, allowable. Further remarks regarding the asserted relationship between any of the claims and the cited references are not necessary in view of their allowability. Applicant's silence as to the Office Action's comments is not indicative of being in acquiescence to the stated grounds of rejection.

CONCLUSION

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

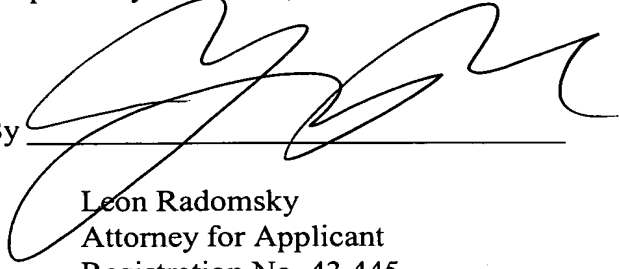
The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

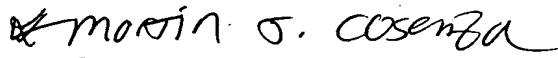
Examiner Stevens is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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